AMENDMENTS TO CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method for upscaling image data, comprising:

identifying a gradient value associated with a pixel location of the image data;

determining whether a direction of the gradient value associated with the pixel location is a horizontal direction or a vertical direction; ~~and~~

applying a weighted interpolation scheme to a value corresponding to the pixel location, so as to place more weight on positions closest to the pixel location, when the direction is a horizontal direction or a vertical direction; and

applying a bilinear interpolation scheme or a bicubic interpolation scheme to the value corresponding to the pixel location when the direction is a non-horizontal direction or a non-vertical direction.

2. (Canceled)

3. (Original) The method of claim 1, wherein the method operation of identifying a gradient value associated with a pixel location of the image data includes,

determining a partial derivative associated with the pixel location.

4. (Currently Amended) The method of claim 1, wherein the method operation of determining whether ~~a~~ the direction associated with the pixel location is a horizontal direction or a vertical direction includes,

defining a horizontal component of the gradient value;

defining a vertical component of the gradient value; and

calculating a magnitude of the gradient value from the horizontal component and the vertical component.

5. (Currently Amended) The method of claim 4, further comprising:

computing a direction angle associated with the pixel location based upon both the horizontal component and the vertical component; and

comparing the magnitude of the gradient value to a threshold value, wherein if the threshold value is greater than the magnitude, the method includes,

applying the ~~a~~ bilinear interpolation scheme or ~~a~~ the bicubic interpolation scheme to the value corresponding to the pixel location irrespective of the direction.

6. (Original) The method of claim 5, wherein the method operation of computing a direction angle associated with the pixel location based upon both the horizontal component and the vertical component includes,

defining the direction angle relative to a horizontal axis.

7. (Original) The method of claim 4, wherein the method operation of defining a horizontal component of the gradient value includes,

defining a partial derivative where a horizontal direction variable is held constant.

8. (Original) The method of claim 4, wherein the method operation of defining a vertical component of the gradient value includes,

defining a partial derivative where a vertical direction variable is held constant.

9. (Original) The method of claim 1, wherein the gradient is defined as a two dimensional vector.

10. (Previously Presented) The method of claim 1, wherein the method operation of applying a weighted interpolation scheme to the pixel location when the direction is a horizontal direction or a vertical direction includes,

transforming coordinates representing the pixel location through a function having a sigmoidal shape.

11. (Currently Amended) A method for scaling video data, comprising:

determining whether a block of image data of a current frame is flagged to indicate a level of difference with a corresponding block of image data of a previous frame;

if the block of image data of the current frame is flagged to indicate a level of difference with the corresponding block of image data of the previous frame, then the method includes;

applying a weighted interpolation scheme adaptively to each pixel location, so as to place more weight on positions closest to the pixel location, within the block of image data of the current frame based upon a direction associated with the pixel location is a horizontal direction or a vertical direction and the level of difference between the current frame and the previous frame; ~~and~~

applying a bilinear interpolation scheme or a bicubic interpolation scheme to the value corresponding to the pixel location when the direction is a non-horizontal direction or a non-vertical direction; and

upscaling the block of image data.

12. (Original) The method of claim 11, wherein if the block of image data of a current frame is flagged to indicate a level of redundancy with the corresponding block of image data of the previous frame, then the method includes;

copying upscaled data representing the corresponding block of image data of the previous frame into an upscaled block of image data of the current frame.

13. (Canceled)

14. (Currently Amended) The method of claim ~~13~~ 11, further comprising:

identifying a gradient value associated with the pixel;

defining a horizontal component of the gradient value;

defining a vertical component of the gradient value; and

calculating a magnitude of the gradient value from the horizontal component and the vertical component.

15. (Previously Presented) The method of claim 11, wherein the method operation of applying a weighted interpolation scheme adaptively to each pixel location within the block of image data of the current frame based upon a direction associated with the pixel location includes,

transforming coordinates representing a particular pixel location through a function associated with a sigmoidal shape.

16. (Previously Presented) The method of claim 14, further comprising

computing a direction angle associated with each pixel location based upon both the horizontal component and the vertical component; and

comparing the magnitude of the gradient value to a threshold value, wherein if the threshold value is greater than the magnitude, the method includes,

applying a bilinear interpolation scheme or a bicubic interpolation scheme to a value corresponding to the pixel location.

17. (Currently Amended) A computer readable medium having program instructions for performing the method recited in claim 1.~~upscaling image data, comprising:~~

~~program instructions for identifying a gradient value associated with a pixel location of the image data;~~

~~program instructions for determining whether a direction associated with the pixel location is a horizontal direction or a vertical direction; and~~

~~program instructions for applying a weighted interpolation scheme to the pixel location to upscale the image data when the direction is a horizontal direction or a vertical direction.~~

18-22. (Canceled)

23. (Currently Amended) A computer readable medium having program instructions for performing the method recited in claim 11.~~scaling video data, comprising:~~

~~program instructions for determining whether a block of image data of a current frame is flagged to indicate a level of difference with a corresponding block of image data of a previous frame; and~~

~~program instructions for applying a weighted interpolation scheme adaptively to a pixel location within the block of image data of the current frame based upon a direction associated with the pixel location when the block of image data of the current frame is flagged to indicate a level of difference with the corresponding block of image data of the previous frame.~~

24-26. (Canceled)

27. (Currently Amended) A system for processing block based image data, comprising:

an encoder configured to compress video data, the encoder configured to set a coded block indicator to a first value when inter frame redundancies between

corresponding blocks of successive frames of a video stream exceed a threshold value, the encoder further configured to set the coded block indicator to a second value when the inter frame redundancies between successive frames of a video stream are less than or equal to the threshold value;

a decoder configured to decompress the video data, and

a scaling module configured to perform the method recited in claim 11. ~~scale the decompressed video data, the scaling module including circuitry for identifying the coded block indicator for each block, the scaling module further including circuitry for adaptively applying a weighted interpolation scheme to a pixel location within a current frame when the coded block indicator is equal to the first value.~~

28-32. (Canceled)

33. (Currently Amended) An integrated circuit capable of performing the method recited in claim 1. ~~scaling image data, comprising:~~

~~logic for calculating a gradient value associated with a pixel location of the image data;~~

~~logic for determining whether an angle defined by a vector associated with the gradient value and an axis is a substantially parallel angle or a substantially perpendicular angle; and~~

~~logic for applying a weighted interpolation scheme to the pixel location when a) the direction is a horizontal direction or a vertical direction and b) the gradient value exceeds a threshold value.~~

34-38. (Canceled)

39. (Currently Amended) An integrated circuit capable of performing the method recited in claim 11. ~~scaling video data, comprising:~~

~~logic for determining whether a block of image data of a current frame is flagged to indicate a level of difference with a corresponding block of image data of a previous frame;~~

~~logic for applying a weighted interpolation scheme adaptively to a pixel location within the block of image data of the current frame based upon a direction associated with the pixel location, wherein the block of image data of the~~

~~current frame is associated with a flag indicative of a level of difference with the corresponding block of image data of the previous frame; and~~

~~logic for applying a bilinear interpolation scheme when the direction associated with the pixel location excludes the weighted interpolation scheme.~~

40-43. (Canceled)